

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
**Re: Appeal to the Board of Patent Appeals and Interferences**

Appellants	Siebers et al.	)	Examiner:	Elizabeth M. Cole
		)		
Serial Number:	10/733,162	)	Group Art Unit:	1771
		)		
Filed:	December 11, 2003	)	Customer Number:	22827
		)		
Confirmation No.:	5959	)	Deposit Account:	04-1403
		)		
Title:	Disposable Scrubbing Product	)	Attorney Docket No.	KCX-651 (18385)

1. ☐ **NOTICE OF APPEAL**: Pursuant to 37 CFR 41.31, Applicant hereby appeals to the Board of Appeals from the decision dated \_\_\_\_\_ of the Examiner twice/finally rejecting claims \_\_\_\_\_.
2. ☒ **BRIEF** on appeal in this application pursuant to 37 CFR 41.37 is transmitted herewith (1 copy).
3. ☐ An **ORAL HEARING** is respectfully requested under 37 CFR 41.47 (due within two months after Examiner's Answer).
4. ☐ Reply Brief under 37 CFR 41.41(b) is transmitted herewith (1 copy).
5. ☐ "Small entity" verified statement filed: [ ] herewith [ ] previously.

6. **FEE CALCULATION:**

	<b>Fees</b>
If box 1 above is X'd enter \$ 540.00	\$ <u>0.00</u>
If box 2 above is X'd enter \$ 540.00	\$ <u>540.00</u>
If box 3 above is X'd enter \$1,080.00	\$ <u>0.00</u>
If box 4 above is X-d enter -0- (no fee)	\$ <u>0.00</u>

**PETITION** is hereby made to extend the original due date of March 15, 2009, hereby made for an extension to cover the date this response is filed for which the requisite fee is enclosed (1 month \$130; 2 months \$490; 3 months \$1,110; 4 months \$1,730, 5 months \$2,350) \$ 130.00

**SUBTOTAL:** \$ 670.00

Less any previous extension fee paid since above original due date. - \$ 0.00

Less any previous fee paid for prior Notice of Appeal since Board did not render a decision on the merits. MPEP § 1204.01 - \$ 0.00

Less any previous fee paid for submitting Brief on prior Appeal since Board did not render a decision on the merits. MPEP § 1204.01 - \$ 0.00

**SUBTOTAL:** \$ 670.00

If "small entity" verified statement filed ☐ previously,  
☐ herewith, enter one-half (1/2) of subtotal and subtract - \$ 0.00

**TOTAL FEE ENCLOSED:** \$ 670.00

- ☐ Fee enclosed.
- ☐ Charge fee to our Deposit Account/Order Nos. in the heading hereof (for which purpose one additional copy of this sheet is attached)
- ☒ Charge to credit card (attach Credit Card Payment Form – PTO 2038)
- ☐ Fee NOT required since paid in prior appeal in which the Board of Appeals did not render a decision on the merits.

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The Commissioner is hereby authorized to charge any fee specifically authorized hereafter, or any fees in addition to the fee(s) filed, or asserted to be filed, or which should have been filed herewith or concerning any paper filed hereafter, and which may be required under Rules 16-18 (deficiency only) now or hereafter relative to this application and the resulting official document under Rule 20, or credit any overpayment, to our Account No. shown in the heading hereof. This statement does not authorize charge of the issue fee in this case.

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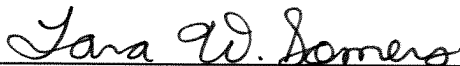
Date: March 26, 2009

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I hereby certify that this correspondence and all attachments and any fee(s) are being electronically transmitted via the internet to the U.S. Patent and Trademark Office using the Electronic Patent Filing System on March 26, 2009.

Tara W. Somers

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(Signature of person transmitting documents)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF APPEALS AND INTERFERENCES**

Appellants:	Siebers et al.	)	Examiner:	Elizabeth M. Cole
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Application No.:	10/733,162	)	Group Art Unit:	1771
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Filed:	December 11, 2003	)	Customer Number:	22827
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Confirmation No.:	5959	)	Deposit Account:	04-1403
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Title:	"Disposable Scrubbing Product"	)	Attorney Docket No.:	KCX-651 (18385)
		)		

**BRIEF ON APPEAL**

Commissioner for Patents  
Post Office Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Appellants submit the following brief on appeal in accordance with 37 C.F.R. §  
41.37:

**1. REAL PARTY IN INTEREST**

The real party in interest in this matter is the assignee of record, Kimberly-Clark  
Worldwide, Inc.

**2. RELATED APPEALS AND INTERFERENCES**

There are no other appeals or interferences known to the Appellants or the  
Appellants' legal representative which will directly affect or be directly affected by or  
have a bearing on the Board's decision in the pending appeal.

**3. STATUS OF CLAIMS**

Currently, claims 1-14, 16-21, 23, 25-67 are pending. This includes independent claims 1, 33 and 52.. Claims 1-14, 16-21, 23, 25-67 stand rejected in the Final Office Action dated September 17, 2008. All of the claims are attached hereto in the Claims Appendix.

The rejection of claims 1-14, 16-21, 23, 35-67 is hereby appealed.

**4. STATUS OF AMENDMENTS**

To the Appellants' knowledge, all amendments have been entered into the record.

**5. SUMMARY OF CLAIMED SUBJECT MATTER**

Claim 1 claims a scrubbing product comprising a liquid absorbent structure comprising a plurality of fibrous cellulosic webs. (P. 2, ll. 17-19.) The webs include at least eight paper webs containing at least 5% by weight high yield fibers with the absorbent structure having a thickness. (P. 4, ll. 21-22; p. 25, ll. 2-4.) There are a plurality of apertures extending at least partially through the thickness of the absorbent structure, (P. 3, ll. 1-3), the apertures having a diameter of less than about 10 mm. (P. 4, ll. 15-16.) Each fibrous cellulosic web is adjacent to at least one other fibrous cellulosic web and the plurality of apertures are formed and arranged such that the structure of the apertures contributes to the structural integrity of the liquid absorbent structure in the direction of the absorbent structure's thickness. (P. 44, ll. 21-23; P. 49, ll. 16-18.)

Claim 33 claims a scrubbing product comprising a liquid absorbent structure comprising a plurality of fibrous cellulosic webs comprising high yield fibers. (P. 43, ll.

10-15.) The liquid absorbent structure including at least 8 layers of the webs, the absorbent structure having a thickness. (P. 4, ll. 21-22.) There is a plurality of apertures extending at least partially through the thickness of the absorbent structure. (P. 3, ll. 1-3.) The apertures having a diameter of from about 0.5 mm to about 10 mm. (P. 45, l. 5.) The apertures are present at a density of from about 1 aperture per square inch to about 30 apertures per square inch. (P. 45, ll. 13-16.) Each of the plurality of fibrous cellulosic webs in the liquid absorbent structure is adjacent to at least one other fibrous cellulosic web. The plurality of apertures are formed and arranged such that the structure of the apertures contributes to the structural integrity of the liquid absorbent structure in the direction of the absorbent structure's thickness. (P. 44, ll. 21-23; P. 49, ll. 16-18.)

Claim 52 claims a scrubbing product comprising a liquid absorbent structure comprising a plurality of fibrous cellulosic webs comprising high yield fibers. (P. 43, ll. 10-15.) The liquid absorbent structure including at least 8 layers of the webs and having a thickness. (P. 4, ll. 21-22.) A plurality of apertures extending at least partially through the thickness of the absorbent structure. (p. 3, ll. 1-3.) The apertures having a diameter of from about 0.5 mm to about 10 mm. (P. 45, l. 5.) The apertures being present at a density of from about 1 aperture per square inch to about 30 apertures per square inch. (P. 45, ll. 13-16.) An abrasive layer secured to at least one side of the absorbent structure. (P. 49, ll. 21-22.) The abrasive layer comprising polymeric fibers in a non-uniform distribution, the abrasive layer comprising a meltspun web. (P. 15, l. 31 – P. 16, l. 4.) Each of the plurality of fibrous cellulosic webs in the liquid absorbent structure is adjacent to at least one other fibrous cellulosic web. The plurality of

apertures are formed and arranged such that the structure of the apertures contributes to the structural integrity of the liquid absorbent structure in the direction of the absorbent structure's thickness. (P. 44, ll. 21-23; P. 49, ll. 16-18.)

## **6. GROUNDINGS OF REJECTION TO BE REVIEWED ON APPEAL**

In the Final Office Action, Claims 1-14, 16-21, 23, 25-67 stand rejected pursuant to 35 U.S.C. § 103(a) as unpatentable over EP 0066463 ("EP '463") in view of Srinivasan et al. U.S. Pat. No. 6,025,050 ("Srinivasan '050"), Currie et al. U.S. Pat. No. 5,429,854 ("Currie '854"), Vinson et al. U.S. Pat. No. 5,830,317 ("Vinson '317") in further view of EP 1212974 ("EP '974").

The rejection of claims 1-14, 16-21, 23, 25-67 is hereby appealed.

## **7. ARGUMENT**

Appellants respectfully submit that the presently pending claims are patentable over the cited references.

- I. Independent Claims 1, 33 And 52 Are Not Rendered Unpatentable Pursuant To 35 U.S.C. § 103(A) By The Combination Of EP 0066463 In View Of Srinivasan 6,025,050, Currie 5,429,854, Vinson 5,830,317 In Further View Of EP 1212974 Because There Is No Articulated, Logical Reason For Combining The References And They Teach Away From Being Combined.**

In rejecting claims under 35 U.S.C. § 103(a), it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness.<sup>1</sup> In so doing,

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<sup>1</sup> See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

the Examiner must make the factual determinations set forth in Graham v John Deere Co.<sup>2</sup>

Claims 1, 33 and 52 are directed to a scrubbing product comprised of, *inter alia*, a liquid absorbent structure comprising a plurality of fibrous cellulosic webs. The webs include at least eight paper webs containing at least 5% by weight high yield fibers with the absorbent structure having a thickness. There are a plurality of apertures extending at least partially through the thickness of the absorbent structure with a diameter of less than about 10 mm. Each fibrous cellulosic web is adjacent to at least one other fibrous cellulosic web and the plurality of apertures are formed and arranged such that the structure of the apertures contributes to the structural integrity of the liquid absorbent structure in the direction of the absorbent structure's thickness.

The Final Office Action contends claims 1, 33 and 52 are rendered unpatentable by the combination of EP '463 in view of Srinivasan '050, Currie '854, Vinson '317 in further view of EP '974. As Appellant explained at length in its 12/22/08 Response to the Final Office Action, one skilled in the art would not make the combination suggested by the Final Office Action. Modifying EP '463 by incorporating Srinivasan '050 and/or Currie '854 to arrive at the scrubbing product Appellant claims would destroy the intent of EP '463 by forming apertures with a fused inner surface that would prevent the controlled release of components. Thus, the references teach away from their combination and it is improper to combine them.<sup>3</sup>

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<sup>2</sup> 383 U.S. 1, 17, 148 USPQ 459, 467 (1966); See also, In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992) (stating "the examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a prima facie case of unpatentability").

<sup>3</sup> In re Grasselli, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983).

The 01/07/09 Advisory Action responded that

. . . while Srinivasan '050 teaches forming a fused ring by the heated aperturing process, however, the the [sic] fused ring is at the perimeter and would not prevent the material within the layer from being dispensed since it does not formed [sic] a fused ring throughout the entire depth of the layer.

(01/07/09 Advisory Action, p. 2, ¶ 1.)

However, the Examiner's position in the Advisory Action is simply wrong.

In conducting an analysis under § 103(a), there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.<sup>4</sup> Accordingly, even if all elements of a claim are disclosed in various prior art references, which is denied herein, the claimed invention taken as a whole cannot be said to be obvious without some reason given in the prior art why one of ordinary skill would have been prompted to modify the teachings of the references to arrive at the claimed invention.<sup>5</sup>

As discussed *infra*, Srinivasan '050 plainly discloses that the apertures which extend through the nonwoven laminate are created via heat and pressure. This results in the substrate layers being **fused around the entire periphery of the aperture.** There is simply no articulated, logical reason why one skilled in the art would modify EP '463, which, as shown below, decries blocking the apertures that release components, by incorporating Srinivasan '050. This modification results in apertures that are fused around their entire periphery. Thus, nothing can flow through these apertures because

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<sup>4</sup> KSR Int'l Co. v. Teleflex Inc., 127 S. Ct. 1727, 82 USPQ2d 1385, 1396 (2007); In re Kahn, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006).

<sup>5</sup> See e.g., In re Regel, 188 U.S.P.Q. 132 (C.C.P.A. 1975).



the process of making them fuses the boundaries of the apertures shut and would prevent components stored elsewhere in the construct from flowing through the apertures.

EP '463 discloses an article for wiping surfaces or for releasing an active material that has a "closed sandwich" structure comprising two substrate layers bonded together in such a way as to create a plurality of compartments. (Abstract.) EP '463 explains:

According to an especially preferred embodiment of the invention, different compartments of the article are provided with different numbers of perforations, and/or with perforations of different sizes, so that the contents of the different compartments will be released at different rates. Thus controlled release of the active materials from the article over a relatively long period may be achieved.

...

Advantageously the perforations which allow release of the active material from within the compartments are made after the application of the adhesive and abrasive, to avoid the danger of blockage.

...

Using a syringe needle having a diameter of 0.8 mm, numbers of perforations varying from 2 to 20 were made in the various sachets.

...

The product was pinholed such that 50% of the compartments had 10 perforations/cm<sup>2</sup> and the remaining 50% had 2.4 perforations/cm<sup>2</sup>.

(EP '463, p. 3, ll. 17-23; p. 12, ll. 6-9; p. 14, ll. 28-30; p. 16, ll. 20-22.)

EP '463 FIGS. 2 and 3 illustrate the invention:

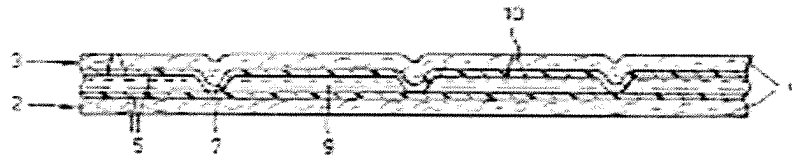


Fig. 2.

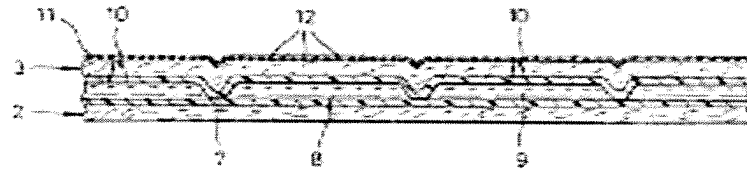


Fig. 3.

Accordingly, EP '463 discloses a “closed sandwich” structure comprising two substrate layers bonded together to create a plurality of compartments. **These compartments contain active ingredients which are released through the apertures of EP '463 upon use.** (EP '463, Abstract.)

Srinivasan '050 discloses an apertured nonwoven laminate produced by a thermal aperturing process. Calendaring a carded web of fibers with a polymeric sheet having a lower melting temperature and shrinks under application of heat and pressure generates apertures through the nonwoven laminate. (Abstract.) Srinivasan '050 explains:

The fusing and pulling back of the fibers by the melting/shrinking polymeric sheet is **evident from the crusted ring of fused or congealed material surrounding the apertures and bonding the layers thereof.**

...

In general, the desired polymeric layer for use in this invention has the property of readily fusing to the fibers of the fibrous layer(s) and shrinking sharply under calendar heat and pressure so as **to pull the fused fiber ends back away from the calendar points to form an aperture through the laminate.**

As shown in FIG. 1c, application of suitable heat and pressure **causes the lower melting film 12 to melt and**

suddenly shrink away from the area of the calendering points 20a, 20b. While shrinking away, the melting film fuses to the fibers of the webs 10a, 10b and pulls the fibers back away from the calendering points 22a, 22b. As shown in FIG. 1d, the result is that the film 12 and the fibers of the carded webs 10a, 10b become fused to each other, forming a crusted ring of fused matter 32 around the area of the calendering points 22a, 22b. This crusted ring serves simultaneously to bond the layers together and to define an aperture 30 (or "through-hole") completely through all layers of the nonwoven fabric having a fused border along the periphery thereof. The film acts as a carrier to move the fibers away from the calendering points 22a, 22b and to create the aperture 30.

(Srinivasan '050: Col. 3, ll. 9-12; Col. 6, ll. 58-63; Col. 7, ll. 21-35.)

FIGS. 1d and 4b illustrate the fused apertures:

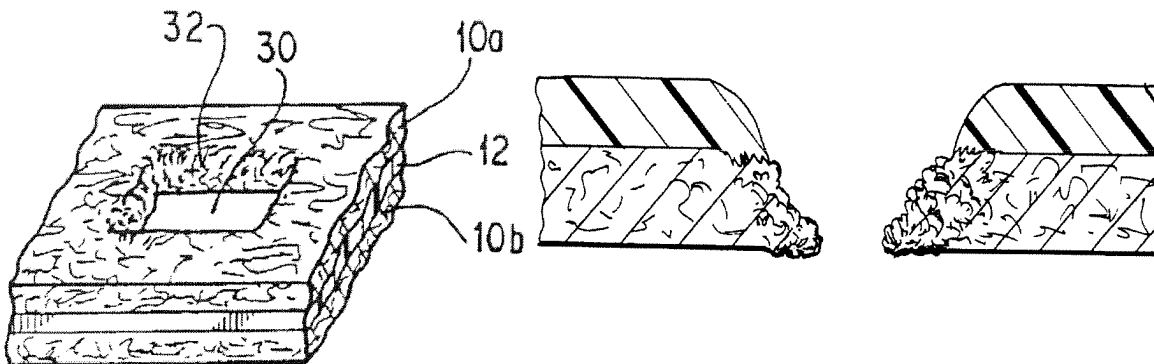


FIG. 1d

FIG. 4B

As shown above, Srinivasan '050 discloses forming apertures that extend at least partially through the entirety of the laminate structure and possess a "crusted ring of fused matter" along the periphery of the calendaring points to form an aperture.

There is no logical, articulated reason why one skilled in the art would combine EP '463 with Srinivasan '050. EP '463 discloses creating apertures into compartments sandwiched between two layers so that active ingredients located in the compartments will pass through the apertures upon use. These apertures are formed by using a

syringe or pinholing. Srinivasan '050, conversely, discloses using heat and pressure to form apertures that are essentially a closed cavity with a fused interior extending either partially or completely through the laminate of the invention. If one were to incorporate the apertures formed by Srinivasan '050 into EP '463, the active ingredients in the compartments would remain trapped as the openings constituting the apertures would be surrounded by a fused, crusted boundary. This specifically defeats the purpose of EP '463 which decries "the danger of blockage" that would prevent the compartments from emptying through the apertures upon use. Accordingly, the combination of EP '463 and Srinivasan '050 cannot support the rejection of claims 1, 33 and 52 pursuant to 35 U.S.C. § 103. Thus, the rejection of the claims should be reversed and the claims allowed.

Further, one skilled in the art would not combine EP '463 with Currie '854. As explained above, EP '463 discloses apertures which extend into cavities containing active ingredients for the purpose of allowing the ingredients to flow through the apertures upon use of the wiping article.

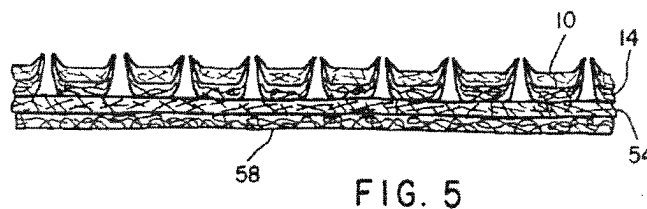
Currie '854, however, discloses creating abrasive composite material from the bottom-most two layers of a construct. Currie '854 does not disclose creating apertures that extend into other layers of the web. Currie '854 explains:

The pin and apertured rollers serve to **mold the fibers of the coarse, shot-laden meltblown layer and the fibers of the supporting carrier layer into a three-dimensional generally conical shape**. Elevation of the temperature of the pin aperturing apparatus serves to **lock the apertured surface into the three-dimensional shape formed when the heated pins penetrate through both the coarse, shot-laden layer and its supporting carrier layer into the apertured roller**. Accordingly, the surface area of the apertured layers is increased. Additionally, the three-

dimensional stabilized structure presents a much more aggressive abrasive medium for the removal of coarse dry dirt when the material is utilized as part of a wiper. Moreover, **the three dimensional structure provides macro-pits and macro-troughs which act to entrap dirt in addition to the dirt trapping ability of the voids of the coarse, shot-laden meltblown layer.** Lastly, it can also be stated that the apertures facilitate the transfer of liquid through the composite web when it is being utilized to wipe up liquids.

(Currie '854: Col. 8, ll. 16-36.)

Currie '854 is clearly illustrated by FIG. 5:



One skilled in the art would not seek to form the apertures required by EP '463 by following the teachings of Currie '854. As FIG. 5 clearly shows, the apertures formed by Currie '854 comprise melted portions of layers 10 and 14, they do not extend into subsequent layers or cavities. Further, the apertures are designed to assist with abrasive scrubbing and trapping dirt and debris while allowing fluid to contact the surface of inner layer 54, not extend into cavities in the layer. **Thus, these apertures could not accomplish the intent of EP '463 which is to have apertures extend into cavities containing active ingredients in order to allow the ingredients to flow from the cavities.**

Further, as discussed above with respect to Srinivasan '050, Currie '854 uses hot-pin aperturing to create the apertures. This would mimic the structure of the apertures formed in Srinivasan '050 wherein the apertures have a fused boundary. Therefore, Currie '854's apertures are sealed and would prevent the flow of the active

ingredients from the cavities required by EP '463. A result EP '463 specifically seeks to avoid.

Appellant respectfully notes that if proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.<sup>6</sup> It is improper to combine references where the references teach away from their combination. Accordingly, EP '463, Srinivasan '050 and Currie '854 teach away from their combination and the rejection of claims 1, 33 and 52 pursuant to 35 U.S.C. § 103 based on this combination should be reversed and the claims allowed.

**II. The Claimed Number Of Sheets In Claims 1, 33 And 52 Would Not Be The Result Of “Routine” Experimentation.**

Appellant notes that a particular parameter must first be recognized as a result-effective variable before the determination of the optimum range of the variable might be characterized as routine experimentation.<sup>7</sup>

Appellant respectfully requests reversal of the Final Office Action rejecting independent claims 1, 33 and 52. The Final Office Action rejects the claims as obvious stating:

With regard to the number of plies, since the cellulosic plies are provided in order to provide softness and absorbency to the cleaning sheet, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have selected the appropriate number of plies through the process of routine experimentation in order to arrive at a cleaning sheet having the optimum absorbency and softness.

(09/17/08 Office Action, p. 4, ¶ 4.)

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<sup>6</sup> *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

<sup>7</sup> See *In re Antoine*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977).

The claimed number of sheets would not be the result of “routine” experimentation. The Final Office Action, as well as previous Office Actions, asserts that it would be obvious to use high-yield fibers for the cellulosic fibers of EP ‘463 in order to reduce consumption of forest products. Assuming *arguendo* that this is correct, which is denied, it does not follow that one of ordinary skill in the art would perceive a reasonable chance of success in producing an article comprising an absorbent structure having the particularly claimed number of sheets and other characteristics.

**A. The Reasoning Offered By The Final Office Action Is Inadequate.**

First, as a general matter, one of ordinary skill in the art would not perceive a reasonable chance of success in using an absorbent structure comprising at least eight sheets for the reasons alleged in the Final Office Action. The sections relied upon from EP ‘463 state that “the use of porous material also has the advantage that the outer sides of the article are to some extent absorbent” and that “...the outer surfaces of the article are of softer, porous material to give some absorbency and improved handling.” However, EP ‘463 discloses a “closed sandwich” structure comprising two substrate layers bonded together in such a way as to create a plurality of compartments.

EP ‘463 must be considered for all its teachings, and the stated advantage of using a porous material is in the context of identifying which “flexible sheet materials” are suitable for use in the **two** substrate layers. See, e.g. EP ‘463 at page 4. The Final Office Action provides no articulated, rational reason why one skilled in the art would interpret the disclosure of EP ‘463 to teach that **more** layers would necessarily achieve a softer product or better absorbency, nor is softness/absorbency the primary aim of EP ‘463.

Additionally, as noted below, an important feature of the EP '463 sheet is the plurality of compartments formed by the two substrate layers. The use of eight adjacent cellulosic layers could interfere with the proper functioning of the compartments, and thus the proposed modification could render EP '463 inoperative for its intended use. Accordingly, there is no logical, articulated reason why one skilled in the art would make the suggested combination. Thus, the rejection of the claims should be reversed and the claims allowed.

**B. The Office Action Has Not Shown That One Of Ordinary Skill Would Reach The Claimed Number Of Layers To Reach The Allegedly-Desired Result Of EP '463.**

Even if one of ordinary skill in the art attempted to increase the softness and absorbency through the use of multiple layers in the EP '463 sheet, it does not follow that one of ordinary skill in the art would perceive a reasonable chance of success in using at least **eight** layers as set forth in claims 1, 33, and 52. This logic becomes even more tenuous and even less likely with regard to claims 23 and 56, which recite at least **twelve** layers, and even more suspect with respect to claim 57 which recites at least **eighteen** layers.

Regardless of the particular fibers involved, the higher number of layers would substantially increase the bulk of the cleaning sheet. See, for instance, Appellant's discussion at page 42 of the specification ("In general, the absorbent structure 334 may contain at least 8 layers, at least 12 layers, at least 18 layers, and in one embodiment can contain at least 20 layers. By increasing the number of layers, the absorbent structure obtains more sponge-like characteristics.")



EP '463, however, does not envision a bulky or sponge-like product. Instead, EP'463 contemplates an article "comprising a first substrate layer and a second substrate layer so bonded together as to create a plurality of compartments therebetween, at least some of said compartments containing active material and at least some of said compartments being provided with one or more perforations in one or each of the substrate walls defining said compartments." (EP '463, p. 2, l. 31 – p. 3, l. 6.)

In discussing its examples 3-6, EP '463 notes that "none of the articles felt harsh to the touch, and on wetting with hand-hot tap water (about 50°C) were flexible enough to be comfortably folded or crumpled in the hand for use." (EP '463 at page 19.) Thus, even if one of ordinary skill in the art would attempt to add one or two layers to EP '463 for the proffered reason, the Office Action has not shown why one of ordinary skill would continue on to eight, twelve, or eighteen layers since EP '463 does not contemplate a sponge-like product. Even if EP '463 desires softness as a subsidiary goal, the use of at least eight layers would not necessarily achieve this result, since the cleaning sheet would become more bulky with each additional layer. Accordingly, there is no logical, articulated reason why one skilled in the art would make the suggested combination. Thus, the rejection of the claims should be reversed and the claims allowed.

C. **Especially When The Particular Characteristics Of The Layers Are Considered, It Would Not Be Obvious To One Of Ordinary Skill To Assemble The Claimed Number Of Layers.**

Even assuming one of ordinary skill in the art would experiment with the number of layers in EP '463, the result of routine experimentation would not necessarily be at

least eight paper webs containing high yield fibers if “softness” were the desired result. As noted by Vinson at Col. 2, lines 36-44, use of high yield fibers “contributes to the loss of the velvety feel which is imparted by prime fibers selected because of their flaccidness.” Further, Vinson mentions the use of filler material to soften tissue paper webs that can comprise high-yield fibers. See, e.g., Col. 26, lines 11-17. However, one seeking to invent a product used for **scrubbing** would not incorporate **tissue** webs.

Thus, it is not clear from the Final Office Action why one of ordinary skill in the art, concerned with the softness of the EP ‘463 sheet would choose to use high yield fibers at all, especially multiple layers of webs comprising such fibers. To one skilled in the art, the incorporation of additional layers will increase the total modulus of the composite and not enhance a softness characteristic. Additional layers would greatly detract from perceived softness. Accordingly, there is no logical, articulated reason why one skilled in the art would make the suggested combination. Thus, the rejection of the claims should be reversed and the claims allowed.

### **III. The Examiner’s Attempted Modification Of EP ‘463 Is Based On Impermissible Hindsight Analysis.**

To the extent that any motivation exists for modifying EP ‘463 as suggested by the Examiner, Appellant submits that it results only from using Appellant’s disclosure as a blueprint to reconstruct the claimed invention out of isolated teachings in the prior art, which is improper hindsight analysis under 35 U.S.C. § 103 (a). The U.S. Supreme Court recently reaffirmed that a “factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of argument reliant upon ex post

reasoning.”<sup>8</sup> Thus, Appellants respectfully submit that independent claims 1, 33 and 52 patentably define over the cited references.

#### **IV. The Final Office Action Fails To Address The Claimed Subject Matter Of Dependent Claims 26, 46 And 58.**

The Final Office Action also rejected certain dependent claims in the present application (2-14, 16-21, 23, 25-32, 34-51, and 53-67) as unpatentable pursuant to 35 U.S.C. § 103(a) in view of the combination of EP '463 in view of Srinivasan '050, Currie '854, Vinson '317 in further view of EP '974.

The dependent claims depend either directly or indirectly from independent claims 1, 33, or 52 and recite the present invention in varying scope. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious.<sup>9</sup> Appellants have herein discussed EP '463 and the references cited in combination with it in relation to claims 1, 33, and 52. The dependent claims 26, 46 and 58 are similarly distinguishable not only because of the patentability of independent claims 1, 33, and 52 but also because of the combination of the subject matter of each of the dependent claims with their independent claim which makes each claim further distinguishable, and which is not taught or suggested by EP '463 in any proper combination.

Importantly, the Office Action has yet to address the claimed subject matter of dependent claims 26, 46, and 58. These claims each state that “one set of apertures are formed into one side of the absorbent structure while a second set of apertures are

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<sup>8</sup> KSR Int'l Co. v. Teleflex Inc., 127 S. Ct. 1727, 82 USPQ2d at 1397. *See also*, Graham v. John Deere Co., 383 U.S. at 36, 148 USPQ at 474.

<sup>9</sup> In re Fine, 837 F.2d 1071 (Fed. Cir. 1988).

formed into an opposite side of the absorbent structure, the apertures of the first set being positioned in the Z-direction offset from the apertures of the second set.”

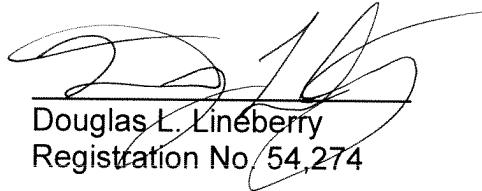
However, the Examiner has yet to address these limitations in any Office Action to date.

Accordingly, allowance of the claims is respectfully requested.

For the reasons stated above, it is Appellants' position that the Examiner's rejection of claims has been shown to be untenable and should be **reversed** by the Board. Please charge any additional fees required by this Appeal Brief to Deposit Account No. 04-1403.

Respectfully submitted,

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## 9. CLAIMS APPENDIX

1. (Rejected) A scrubbing product comprising:
  - a liquid absorbent structure comprising a plurality of fibrous cellulosic webs, the webs including at least eight paper webs containing at least 5% by weight high yield fibers, the absorbent structure having a thickness;
  - a plurality of apertures extending at least partially through the thickness of the absorbent structure, the apertures having a diameter of less than about 10 mm;
  - wherein each fibrous cellulosic web is adjacent to at least one other fibrous cellulosic web; and
  - wherein the plurality of apertures are formed and arranged such that the structure of the apertures contributes to the structural integrity of the liquid absorbent structure in the direction of the absorbent structure's thickness.
2. (Rejected) A scrubbing product as defined in claim 1, wherein the apertures have a diameter of from about 0.5 mm to about 5 mm.
3. (Rejected) A scrubbing product as defined in claim 1, wherein the apertures are present in the absorbent structure in an amount from about 1 aperture per square inch to about 30 apertures per square inch.
4. (Rejected) A scrubbing product as defined in claim 1, wherein the apertures extend through at least 10% of the thickness of the absorbent structure.
5. (Rejected) A scrubbing product as defined in claim 1, wherein the apertures extend through at least 10% of the thickness of the absorbent structure but less than about 90% of the thickness.
6. (Rejected) A scrubbing product as defined in claim 1, wherein the apertures extend through at least 10% of the thickness of the absorbent structure but less than about 50% of the thickness.
7. (Rejected) A scrubbing product as defined in claim 1, wherein the apertures have a depth that is not uniform in relation to one another.

8. (Rejected) A scrubbing product as defined in claim 1, wherein the scrubbing product includes at least one layer comprising a thermally bondable material, the thermally bondable material having been heated during formation of the apertures causing the thermally bondable material to bond to adjacent layers.

9. (Rejected) A scrubbing product as defined in claim 1, wherein the apertures are formed into one side of the absorbent structure.

10. (Rejected) A scrubbing product as defined in claim 1, wherein the apertures are formed into opposite sides of the absorbent structure.

11. (Rejected) A scrubbing product as defined in claim 1, wherein the absorbent structure further comprises a cover wrapped around the plurality of fibrous webs.

12. (Rejected) A scrubbing product as defined in claim 1, wherein the apertures form passages in the absorbent structure, the passages containing a chemical additive.

13. (Rejected) A scrubbing product as defined in claim 12, wherein the chemical additive comprises a soap or a detergent.

14. (Rejected) A scrubbing product as defined in claim 1, wherein the apertures have different diameters.

15. (Cancelled).

16. (Rejected) A scrubbing product as defined in claim 1, wherein the fibrous cellulosic webs comprise uncreped, through-air dried webs.

17. (Rejected) A scrubbing product as defined in claim 1, wherein the fibrous cellulosic webs comprise airlaid webs, coform webs, hydroknitted webs, bonded carded webs, or mixtures thereof.

18. (Rejected) A scrubbing product as defined in claim 1, further comprising an abrasive layer secured to one side of the absorbent structure, the abrasive layer comprising polymeric fibers in a non-uniform distribution.

19. (Rejected) A scrubbing product as defined in claim 18, wherein the polymeric fibers are made from a material selected from the group consisting of polypropylene, polyethylene, polyester, polystyrene, polyamide, polyvinylidene, polyvinyl chloride, polyurethane, polyurea, and copolymers thereof.

20. (Rejected) A scrubbing product as defined in claim 18, wherein the abrasive layer comprises a meltspun web.

21. (Rejected) A scrubbing product as defined in claim 18, wherein the abrasive layer comprises a meltblown web.

22. (Cancelled).

23. (Rejected) A scrubbing product as defined in claim 15, wherein the liquid absorbent structure contains at least 12 fibrous webs.

24. (Cancelled).

25. (Rejected) A scrubbing product as defined in claim 18, wherein the polymeric fibers have a diameter of at least 40 microns.

26. (Rejected) A scrubbing product as defined in claim 1, wherein one set of apertures are formed into one side of the absorbent structure while a second set of apertures are formed into an opposite side of the absorbent structure, the apertures of the first set being positioned in the Z-direction offset from the apertures of the second set.

27. (Rejected) A scrubbing product as defined in claim 26, wherein the first set of apertures and the second set of apertures only extend partially through the thickness of the absorbent structure.

28. (Rejected) A scrubbing product as defined in claim 18, wherein the apertures also extend through the abrasive layer.

29. (Rejected) A scrubbing product as defined in claim 1, wherein the fibrous cellulosic webs contained in the absorbent structure are adhered together by an adhesive material.

30. (Rejected) A scrubbing product as defined in claim 1, wherein the absorbent structure includes or is adjacent to at least two layers of a thermally bondable material, the two layers being ultrasonically bonded together within the apertures.

31. (Rejected) A scrubbing product as defined in claim 1, wherein at least certain of the apertures receive a thread for forming stitches through the absorbent structure.

32. (Rejected) A scrubbing product as defined in claim 31, wherein the absorbent structure includes a perimeter and wherein the stitches are located only along the perimeter of the absorbent structure.

33. (Rejected) A scrubbing product comprising:  
a liquid absorbent structure comprising a plurality of fibrous cellulosic webs comprising high yield fibers, the liquid absorbent structure including at least 8 layers of the webs, the absorbent structure having a thickness;  
a plurality of apertures extending at least partially through the thickness of the absorbent structure, the apertures having a diameter of from about 0.5 mm to about 10 mm, the apertures being present at a density of from about 1 aperture per square inch to about 30 apertures per square inch;  
wherein each of the plurality of fibrous cellulosic webs in the liquid absorbent structure is adjacent to at least one other fibrous cellulosic web; and  
wherein the plurality of apertures are formed and arranged such that the structure of the apertures contributes to the structural integrity of the liquid absorbent structure in the direction of the absorbent structure's thickness.



34. (Rejected) A scrubbing product as defined in claim 33, wherein the apertures extend through at least 50% of the thickness of the absorbent structure.

35. (Rejected) A scrubbing product as defined in claim 33, wherein the apertures extend through at least 90% of the thickness of the absorbent structure.

36. (Rejected) A scrubbing product as defined in claim 33, wherein the apertures are formed into one side of the absorbent structure.

37. (Rejected) A scrubbing product as defined in claim 33, wherein the apertures are formed into opposite sides of the absorbent structure.

38. (Rejected) A scrubbing product as defined in claim 33, wherein the absorbent structure further comprises a cover wrapped around the plurality of fibrous webs.

39. (Rejected) A scrubbing product as defined in claim 33, wherein the apertures form passages in the absorbent structure, the passages containing a chemical additive.

40. (Rejected) A scrubbing product as defined in claim 39, wherein the chemical additive comprises a soap, a detergent, a buffering agent, an antimicrobial agent, a skin wellness agent, a lotion, a medication, a polishing agent, or a mixture thereof.

41. (Rejected) A scrubbing product as defined in claim 33, wherein the fibrous cellulosic webs comprise uncreped, through-air dried webs.

42. (Rejected) A scrubbing product as defined in claim 33, further comprising an abrasive layer secured to one side of the absorbent structure, the abrasive layer comprising polymeric fibers in a non-uniform distribution.

43. (Rejected) A scrubbing product as defined in claim 42, wherein the abrasive layer comprises a meltspun web.

44. (Rejected) A scrubbing product as defined in claim 42, wherein the abrasive layer comprises a meltblown web.

45. (Rejected) A scrubbing product as defined in claim 33, wherein the paper webs contain at least 5% by weight high yield fibers.

46. (Rejected) A scrubbing product as defined in claim 33, wherein one set of apertures are formed into one side of the absorbent structure while a second set of apertures are formed into an opposite side of the absorbent structure, the apertures of the first set being positioned in the Z-direction offset from the apertures of the second set.

47. (Rejected) A scrubbing product as defined in claim 46, wherein the first set of apertures and the second set of apertures only extend partially through the thickness of the absorbent structure.

48. (Rejected) A scrubbing product as defined in claim 33, wherein the fibrous cellulosic webs contained in the absorbent structure are adhered together by an adhesive material.

49. (Rejected) A scrubbing product as defined in claim 33, wherein the absorbent structure includes or is adjacent to at least two layers of a thermally bondable material, the two layers being ultrasonically or thermally bonded together within the apertures.

50. (Rejected) A scrubbing product as defined in claim 33, further comprising a plurality of stitches extending through the absorbent structure.

51. (Rejected) A scrubbing product as defined in claim 33, wherein the fibrous cellulosic webs comprise bonded carded webs.

52. (Rejected) A scrubbing product comprising:  
a liquid absorbent structure comprising a plurality of fibrous cellulosic webs comprising high yield fibers, the liquid absorbent structure including at least 8 layers of the webs, the absorbent structure having a thickness;  
a plurality of apertures extending at least partially through the thickness of the absorbent structure, the apertures having a diameter of from about 0.5 mm to about 10 mm, the apertures being present at a density of from about 1 aperture per square inch to about 30 apertures per square inch;  
an abrasive layer secured to at least one side of the absorbent structure, the abrasive layer comprising polymeric fibers in a non-uniform distribution, the abrasive layer comprising a meltspun web;  
wherein each of the plurality of fibrous cellulosic webs in the liquid absorbent structure is adjacent to at least one other fibrous cellulosic web; and  
wherein the plurality of apertures are formed and arranged such that the structure of the apertures contributes to the structural integrity of the liquid absorbent structure in the direction of the absorbent structure's thickness.

53. (Rejected) A scrubbing product as defined in claim 52, wherein the fibrous cellulosic webs comprise uncreped, through-air dried webs.

54. (Rejected) A scrubbing product as defined in claim 52, wherein the abrasive layer comprises a meltspun web.

55. (Rejected) A scrubbing product as defined in claim 52, wherein the abrasive layer comprises a meltblown web.

56. (Rejected) A scrubbing product as defined in claim 52, wherein the liquid absorbent structure contains at least 12 layers.

57. (Rejected) A scrubbing product as defined in claim 52, wherein the liquid absorbent structure contains at least 18 layers.

58. (Rejected) A scrubbing product as defined in claim 52, wherein one set of apertures are formed into one side of the absorbent structure while a second set of

apertures are formed into an opposite side of the absorbent structure, the apertures of the first set being positioned in the Z-direction offset from the apertures of the second set.

59. (Rejected) A scrubbing product as defined in claim 58, wherein the first set of apertures and the second set of apertures only extend partially through the thickness of the absorbent structure.

60. (Rejected) A scrubbing product as defined in claim 52, wherein the apertures also extend through the abrasive layer.

61. (Rejected) A scrubbing product as defined in claim 52, wherein the fibrous cellulosic webs contained in the absorbent structure are adhered together by an adhesive material.

62. (Rejected) A scrubbing product as defined in claim 52, wherein the absorbent structure includes or is adjacent to at least two layers of a thermally bondable material, the two layers being ultrasonically bonded together within the apertures.

63. (Rejected) A scrubbing product as defined in claim 62, wherein at least one layer of the thermally bondable material comprises the abrasive layer.

64. (Rejected) A scrubbing product as defined in claim 63, wherein the second layer of the thermally bondable material comprises a fibrous layer secured to the absorbent structure on a side of the absorbent structure opposite a side of the absorbent structure adjacent to the abrasive layer.

65. (Rejected) A scrubbing product as defined in claim 1, wherein the high yield fibers comprise chemithermomechanical pulp fibers.

66. (Rejected) A scrubbing product as defined in claim 33, wherein the high yield fibers comprise chemithermomechanical pulp fibers.

67. (Rejected) A scrubbing product as defined in claim 52, wherein the high yield fibers comprise chemithermomechanical pulp fibers.

10. **EVIDENCE APPENDIX**

None

11. **RELATED PROCEEDINGS APPENDIX**

None